Message

From: Steven Willis [steve@uxopro.com]

Sent: 9/26/2018 8:01:58 PM

To: Davis, Eva [Davis.Eva@epa.gov]; d'Almeida, Carolyn K. [dAlmeida.Carolyn@epa.gov]

CC: Wayne Miller [miller.wayne@azdeq.gov]

Subject: Re: 2018-9-26- wafb - FYI - Benzene Degradation Literature - ADEQ **Attachments**: ATT00001.txt; Copy of Andersen and Lovely es991211a[1].pdf

Here are the individual files. Let me know if have any problems downloading.

Steven A. Willis, RG UXO Pro, Inc. steve@uxopro.com 480-316-3373

From: Davis, Eva <Davis.Eva@epa.gov>

Sent: Wednesday, September 26, 2018 11:57 AM

To: Wayne Miller; d'Almeida, Carolyn K.; Nicole Goers; Brasaemle, Karla; Steven Willis; eleanor.jennings@parsons.com;

bo@praxis-enviro.com; d p

Cc: JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW; Smallbeck, Donald R.; Pearson, Stuart C.; Paula Panzino;

William.Hughes@SpecProSvcs.com

Subject: RE: 2018-9-26- wafb - FYI - Benzene Degradation Literature - ADEQ

Wayne – EPA email system can't accept .zip files – can you find another way to send them? But the issue is not that we aren't aware of the fact that BTEX can be degraded by sulfate or nitrate, the issue is that the testing that was done shows that the bugs needed for anaerobic benzene degradation are not present at this site. Eva

From: Wayne Miller [mailto:Miller.Wayne@azdeq.gov]

Sent: Wednesday, September 26, 2018 1:47 PM

To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Davis, Eva <Davis.Eva@epa.gov>; Nicole Goers

<Nicole.Goers@TechLawInc.com>; Brasaemle, Karla <KBrasaemle@TechLawInc.com>; steve

<steve@uxopro.com>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Bo <bo@praxis-enviro.com>; d p

<DPope@css-dynamac.com>

Cc: JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW <catherine.jerrard@us.af.mil>; Smallbeck, Donald R.

<donald.smallbeck@woodplc.com>; Pearson, Stuart C. <stuart.pearson@woodplc.com>; Paula Panzino

<Panzino.Paula@azdeq.gov>; William.Hughes@SpecProSvcs.com

Subject: 2018-9-26- wafb - FYI - Benzene Degradation Literature - ADEQ

For the groups' use. Site ST012 Enhanced Bioremediation Remedy. Please forward if I have inadvertently skipped any ST012 group members. Paula Panzino, ADEQ Chief Science Officer, is attempting to capture appropriate email addresses.

Thank you.

Reply to: Panzino.Paula@azdeq.gov

From: Paula Panzino

Sent: Wednesday, September 26, 2018 10:10 AM **To:** Wayne Miller < <u>Miller.Wayne@azdeq.gov</u>>

Cc: Jennings, Eleanor < <u>Eleanor.Jennings@parsons.com</u>>; Steven Willis < <u>steve@uxopro.com</u>>

Subject: 2018-9-26- wafb - FYI - Benzene Degradation Literature

Hi Wayne,

Please forward these papers to the whole team – EPA and AFCEC and copy me. I would do it myself, but I don't have all the e-mail addresses.

The knowledge that the presence of sulfate and nitrate can result in the degradation of BTEX has been around for a long time.

Thank you,

Paula C. Panzino
Chief Science Officer
Arizona Department of Environmental Quality
1110 W Washington Street
Phoenix, AZ 85007
Office: (602) 771-6145

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